

*We claim:*

1. A configurable I/O bus architecture, comprising:  
a system bus interface device;  
first and second I/O bus interface devices;  
first and second intermediate buses;  
a switching device; and  
a steering signal; wherein:  
the first intermediate bus couples the system bus interface device to the first I/O bus interface device;  
the second intermediate bus couples the system bus interface device to the switching device; and  
the switching device is operable to couple the second intermediate bus either to the first or to the second I/O bus interface device responsive to the steering signal.
2. The configurable I/O bus architecture of claim 1:  
further comprising at least a first signal indicating whether an I/O device is coupled to the second I/O bus interface device; and  
wherein the steering signal is derived from the first signal such that the steering signal assumes a first state when the I/O device is so coupled and a second state when the I/O device is not so coupled.
3. The configurable I/O bus architecture of claim 2, wherein:  
the switching device couples the second intermediate bus to the second I/O bus interface device when the steering signal assumes the first state, and couples

the second intermediate bus to the first I/O bus interface device when the steering signal assumes the second state.

4. The configurable I/O bus architecture of claim 2:  
further comprising a second signal indicating whether the I/O device is coupled to the second I/O bus interface device; and  
wherein the steering signal is derived from both the first and second signals using a logic gate.

5. The configurable I/O bus architecture of claim 1:  
further comprising a hand-operated switch; and  
wherein the steering signal is derived from the hand-operated switch such that the steering signal assumes a first state when the hand-operated switch is in a first position, and assumes a second state when the hand-operated switch is in a second position.

6. The configurable I/O bus architecture of claim 5, wherein:  
the switching device couples the second intermediate bus to the second I/O bus interface device when the steering signal assumes the first state, and couples the second intermediate bus to the first I/O bus interface device when the steering signal assumes the second state.

7. The configurable I/O bus architecture of claim 2:  
further comprising a hand-operated switch configured such that, when the hand-operated switch is in a first position, the state of the steering signal is

unaffected, but when the switch is in a second position, the steering signal is forced into either its first or its second state.

8. The configurable I/O bus architecture of claim 4:  
further comprising a hand-operated switch coupled to the output of the gate and configured such that, when the hand-operated switch is in a first position, the state of the steering signal is unaffected, but when the switch is in a second position, the steering signal is forced into either its first or its second state.
9. The configurable I/O bus architecture of claim 1:  
wherein the first and second intermediate buses are rope buses.